

Claims

1. A medicament for treating cancer which comprises a substance inhibiting activities of insulin-like growth factor-I (IGF-I) and insulin-like growth factor-II (IGF-II) and which is administered in combination with irradiation.

2. The medicament for treating cancer according to claim 1, wherein the irradiation is conducted once or plural times at the time of administering the medicament for treating cancer, or before or after the administration.

3. A medicament for treating cancer which comprises a combination of a substance inhibiting activities of insulin-like growth factor-I (IGF-I) and insulin-like growth factor-II (IGF-II) and a substance having an antitumor activity.

4. The medicament for treating cancer according to claim 3, wherein the substance inhibiting activities of insulin-like growth factor-I (IGF-I) and insulin-like growth factor-II (IGF-II) and the substance having an antitumor activity are administered simultaneously or consecutively.

5. The medicament for treating cancer according to any one of claims 1 to 4, wherein the substance inhibiting activities of insulin-like growth factor-I (IGF-I) and insulin-like growth factor-II (IGF-II) is selected from the group consisting of the following (a) to (d),

(a) an antibody or an antibody fragment which specifically binds to IGF-I and IGF-II to inhibit the activities of IGF-I and IGF-II,

(b) a composition comprising an antibody or an antibody fragment which specifically binds to IGF-I to inhibit the activity of IGF-I and an antibody or an antibody fragment which specifically binds to IGF-II to inhibit the activity of IGF-II,

(c) a component wherein an antibody or an antibody fragment which specifically binds to IGF-I to inhibit the activity of IGF-I and an antibody or an antibody fragment which specifically binds to IGF-II to inhibit the activity of IGF-II are combined, and

(d) a complex of an antibody or an antibody fragment which specifically binds to IGF-I to inhibit the activity of IGF-I and an antibody or an antibody fragment which specifically binds to IGF-II to inhibit the activity of IGF-II.

6. The medicament for treating cancer according to claim 5, wherein the antibody is a monoclonal antibody.

7. The medicament for treating cancer according to claim 6, wherein the monoclonal antibody is a monoclonal antibody which binds to an epitope to which a monoclonal antibody produced from hybridoma KM 1468 (FERM BP-7978) binds.

8. The medicament for treating cancer according to any one of claims 5 to 7, wherein the antibody fragment is an antibody fragment selected from the group consisting of Fab, Fab', F(ab')₂, a single chain antibody (scFv), a dimeric variable region (Diabody), a disulfide stabilized variable region (dsFv) and a CDR-containing peptide.

9. The medicament according to claims 1 to 8, wherein the substance having the antitumor activity is a protein or a agent having low-molecular weight.

10. The medicament according to claim 9, wherein the protein is an antibody or a cytokine.

11. The medicament according to claim 9, wherein the agent having low-molecular weight is an agent selected from the group consisting of a DNA alkylating agent, a DNA synthesis inhibitor, a platinum preparation-type DNA crosslinking agent, a metabolic antagonist, a topoisomerase I inhibitor, a topoisomerase II inhibitor, a tubulin acting agent, a hormone

antagonist, an aromatase inhibitor, an immunomodulator, an immunosuppressant, a steroidal antiinflammatory agent, a non-steroidal antiinflammatory agent, an antihistaminic agent, a differentiation inducer, a proteasome inhibitor, a tyrosine kinase inhibitor, an adenosine deaminase inhibitor, an angiogenesis inhibitor, a histone deacetylase inhibitor, a matrix metalloproteinase inhibitor, a farnesyl transferase inhibitor, a bisphosphonate preparation, an Hsp90 inhibitor, a kinesin Eg5 inhibitor, a serine threonine kinase inhibitor and derivatives of these compounds.

12. A method for treating cancer which comprises administering to a mammal an effective amount of a substance inhibiting activities of insulin-like growth factor-I (IGF-I) and insulin-like growth factor-II (IGF-II) in combination with irradiation.

13. The method for treating cancer according to claim 12, wherein the irradiation is conducted once or plural times at the time of administering a medicament for treating cancer, or before or after the administration.

14. A method for treating cancer which comprises administering to a mammal an effective amount of a substance inhibiting activities of insulin-like growth factor-I (IGF-I) and insulin-like growth factor-II (IGF-II) and an effective amount of a substance having an antitumor activity in combination.

15. The method for treating cancer according to claim 14, wherein the effective amount of the substance inhibiting the activities of insulin-like growth factor-I (IGF-I) and insulin-like growth factor-II (IGF-II) and the effective amount of the substance having the antitumor activity are administered simultaneously or successively.